ICKEPS 2012

4th International Competition on Knowledge Engineering for Planning and Scheduling

22nd International Conference On Automated Planning and Scheduling

A Competition at ICAPS 2012

Atibaia, Sao Paulo, Brazil, South America
June 25–29
http://icaps12.poli.usp.br/icaps12/ickeps

Call for Papers

The International Competition on Knowledge Engineering for Planning and Scheduling has been running since 2005 as a bi-annual event promoting the development and importance of the use of knowledge engineering methods and techniques within P&S.

Past events include 3 competitions (ICKEPS) interleaved with 3 workshops (KEPS), all held during ICAPS conferences: ICKEPS'05 (San Francisco, June 2005), ICKEPS'07 (Providence, September 2007), KEPS'08 (Sydney, September 2008), ICKEPS'09 (Thessaloniki, Greece, September 2009), KEPS'10 (Toronto, May 2010) and KEPS'11 (Freiburg, June 2011).

This year the competition aims at focusing on the *Knowledge Engineering process "as a whole"*: tools and techniques that encompass and support the main design phases of a planning domain model. We would like to encourage developers to present tools that support all or some of the following phases:

1. Elicitation & Modeling
2. Model Validation & Verification
3. Plan/Schedule Analysis

Format

The competition will have two main tracks:

1. *Design Process Track*. This track aims at general and specific tools that support all or some of the three mentioned phases.

   - General tools: Tools for the general track will be evaluated (in all phases or in a subset of them) for generic, domain-independent P&S. Competitors will have to demonstrate advantages of their tools in supporting KE for generic P&S approaches.
   - Specific tools: Tools for the specific track will be evaluated in a specific applicative area. Competitors will have to demonstrate advantages of their tools in P&S for the specific area they apply and how they support the design phases.

2. *Challenge Track*. This track aims at providing competitors challenging Planning & Scheduling problems from industry partners so they can use their tools and creativity to come up with a

design solution. Specifications of 2-3 challenging P&S problems will be available in advance for competitors (a set of scenarios will be provided). Interested competitors must show their interest in solving at least one the available problems. Competitors will have to demonstrate the advantage of using their tools/method to produce a P&S model as a solution to the requirements (or a sub-set of) in the specification and the plans for the specified scenarios. Tools for the challenge track will be evaluated on the applicative domain they choose among those provided by industrial partners.

For the *Design Process Track*, entry to ICKEPS will be in two stages:

1. An *EOI* (Expression of Interest).
2. A *paper* describing (1) the tool and the level of support for each phase of the design process or the specific phase that it aimed to support, and (2) the application area of the tool or technique.
3. A *demonstration* given in a workshop-like format, in one of the workshop days at ICAPS 2012. The demonstration session will be open and interactive in which the audience will be able to raise discussions and make questions.

For the *Challenge Track*, entry to ICKEPS will be in three stages:

1. An *EOI* (Expression of Interest) when the challenging domain will be published, describing the chosen domain.
2. A *paper* describing (1) the design solution to the chosen problem, (2) the tool support for each phase of the design process or the specific phase that it aimed to support, and (3) the benefits, weakness and challenges of the application of the tool on the chosen problem.
3. A *demonstration* given in a workshop-like format, in one of the workshop days at ICAPS 2012. The demonstration session will be open and interactive in which the audience will be able to raise discussions and make questions.

All accepted papers will be published in the ICKEPS proceedings. The participants are kindly requested to send the EOI and the paper to the organizers at the e-mail address ickeps12@gmail.com by the deadlines reported below. Submissions must be in PDF using the AAAI format (the same format used for ICAPS) - see the author instructions at the AAAI web site for detailed formatting instructions. Though we do not impose strict restrictions on the paper length, the expected length is 8 pages (if the length differs significantly from 8 pages, please contact the organizers). Content of the paper should address the aims of the competition as stated above.

Awards

We are willing to provide the following awards:

- *Best general tool* of the Design Process Track;
- *Best specific tool* of the Design Process Track;
- One *winner* for each available problem in the Challenge Track.

The winners will be announced at the ICAPS best paper award ceremony and a slot will be reserved at the ICAPS Demo Session. Evidence will take into account both user related issues, as well as planning and scheduling related issues.

Important dates

Design Process Track:

- Deadline for expression of interest: January 15th, 2012
- Deadline for paper submission: February 17th, 2012 (suggested)
- Acceptance notification: March 16th, 2012 (suggested)
- Camera-ready submissions: April 8th, 2012 (to be confirmed)
- Competition date: June 25th or June 26th (to be confirmed)

Challenge Track:

- Publication of problem specifications: January 15th, 2012 (extended)
- Deadline for expression of interest: January 30th, 2012 (suggested)
- Period for Questions & Answers: February 15th to February 22th, 2012 (suggested)
- Deadline for paper submission: April 1st, 2012 (to be confirmed)
- Acceptance notification: April 15th, 2012 (to be confirmed)
- Camera-ready submissions: May 1st, 2012 (to be confirmed)
- Competition date: June 25th or June 26th (to be confirmed)

Organizers

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